



श्रद्धावान् लभते ज्ञानम्

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# RAMMOHAN COLLEGE

(Formerly City College W.Dept.)

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Accredited B<sup>++</sup> Grade by NAAC

Ref. ....

Date.....20

## Internship with Indian Institute of Chemical Biology, Kolkata



सी.एस.आई.आर - भारतीय रासायनिक जीवविज्ञान संस्थान

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद की एक इकाई  
विज्ञान एवं प्रौद्योगिकी मंत्रालय के अधीन, एक स्वायत्त निकाय, भारत सरकार  
4, राजा एस. सी. मुल्लिक रोड, जादवपुर, कोलकाता - 700 032

**CSIR - INDIAN INSTITUTE OF CHEMICAL BIOLOGY**

A Unit of Council of Scientific & Industrial Research  
An Autonomous Body, under Ministry of Science & Technology, Government of India  
4, Raja S. C. Mullick Road, Jadavpur, Kolkata-700 032



*Sib Sankar Roy*, Ph.D.  
Senior Principal Scientist


Date: 06/05/2019

### CERTIFICATE

To Whom It May Concern

This is to certify that **Ms. Priyasmita Ghosh**, pursuing M.Sc in Human physiology from Calcutta University (Rammohan college), has successfully completed a project work in my laboratory. The topic of her project was "Role of Sirt1 in obesity induced insulin resistance associated with impaired Retinol metabolism", which was performed during the time period of March 1st to March 31st, 2019. Priyasmita has contributed significantly to complete the project and got very important results to decipher the mechanisms underlying insulin resistance due to impaired Retinol metabolism. During this tenure, she learned many techniques that are being used in modern biological research viz. plasmid isolation, transfection, real-time PCR, agarose gel electrophoresis, cDNA synthesis, restriction digestion, transformation, western blot analysis, cell culture, RNA isolation, FACS. During this tenure, I found Priyasmita very sincere and hard working. She possesses good moral character, noticeable research aptitude and strong theoretical knowledge. Priyasmita has been very co-operative to other colleagues in the laboratory during her training period. She has all good qualities for being a qualified scientific researcher in future.

I wish Priyasmita all the success in her academic career.

  
**Dr. Sib Sankar Roy**, PhD, FNASc, FAScT  
(Senior Principal Scientist)  
Cell Biology and Physiology Division,  
CSIR-Indian Institute of Chemical Biology, Kolkata.

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*Sib Sankar Roy, Ph.D.*  
Senior Principal Scientist

Date: 06/05/2019

## CERTIFICATE

To Whom It May Concern

This is to certify that **Ms. Triparna Roy**, pursuing M.Sc. in Physiology from Rammohan College, affiliated to University of Calcutta, has successfully completed a project in my laboratory. The topic of her project was "**Glutamine Restriction Promotes Stemness and Chemoresistance in Human Ovarian Cancer cells**", which was performed during the time period of March 7<sup>th</sup> to April 7<sup>th</sup>, 2019. Triparna has contributed significantly to complete the project and got very important results to decipher the role of glutamine deprivation in ovarian cancer stemness and chemoresistance. During this tenure, she has learned many techniques that are being used in modern biological research viz. cell culture, protein isolation, RNA isolation, SDS-PAGE, Western blot analysis, Flow cytometry, Real-time PCR, etc. During this tenure, I found Triparna very sincere and hard working. She possesses good moral character, noticeable research aptitude and strong theoretical knowledge. Triparna has been very co-operative to other colleagues in the laboratory during her training period. She has all good qualities for being a qualified scientific researcher in future.

This report is a bona fide record of her scientific progress. This report or any part thereof has not been submitted elsewhere for any other degree or diploma.

I wish Triparna all the success in her academic career.

*S Roy*  
Dr. Sib Sankar Roy, PhD, FNASc, FAScT  
(Senior Principal Scientist)  
Cell Biology and Physiology Division,  
CSIR-Indian Institute of Chemical Biology, Kolkata.

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## SUMMER PROJECT REPORT

***Project Title: “Transient Expression of a Human Proto-oncogene ETS-1, in Human Ovarian Cancer Cell Line”***

**PRESENTED BY: Tulika Das**

**Department of Human Physiology**

**Rammohan College under University of Calcutta**

**M.Sc. 4<sup>th</sup> Semester**

**ROLL NO: RMC/PHY/16/09**

**REGISTRATION NO: 113-1221-0033-13**



***Supervised by: Dr. Sib Sankar Roy (Senior Principal Scientist)***

**CSIR-INDIAN INSTITUTE OF CHEMICAL BIOLOGY**

**RESEARCH DIVISION: CELL BIOLOGY AND PHYSIOLOGY**



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